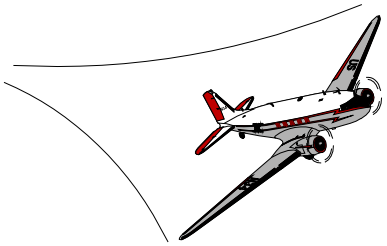
REVISED SPECIAL AIRWORTHINESS INFORMATION BULLETIN



Aircraft Certification Service
Washington, DC

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Introduction

This Revised Special Airworthiness Information Bulletin (SAIB) advises you, a registered owner of Raytheon Aircraft Company Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) Airplanes, of a means to extend the compliance time of AD 2001-13-18.

This revision clarifies the amount of time permitted for owners to accomplish required inspections and schedule their airplane for an approved structural modification. This revision replaces the original SAIB CE-02-38 issued on July 30, 2002.

Background

Wing separation of a T-34 due to metal fatigue caused a fatal accident in 1999. The FAA issued AD 99-12-02 to restrict flight to a maximum airspeed of 175 MPH and g limits between +2.5 and –0.0. On August 16, 2001, the FAA issued AD 2001-13-18, which superseded AD 99-12-02. This AD requires inspections of the front and rear spars per Raytheon SB 57-3329 by August 16, 2002, or within 80 hours time in service (TIS) after August 16, 2001, whichever occurs later, and must be repeated every 80 hours TIS.

The Raytheon repetitive inspection procedure uses an eddy current method that requires removal of fasteners. The FAA has been working with interested owners and modifiers to investigate structural modifications and alternative inspection procedures that would provide the same, or higher, level of safety as the inspections required in the AD.

Recent Changes to AD 2001-13-18 Compliance Requirements

Nogle and Black Aviation provided data to justify a front spar replacement per their STC with a new, stronger “common spar” and a 500-hour TIS repetitive rear spar fitting inspection. This was proposed as an Alternative Method of Compliance (AMOC) to AD 2001-13-18. The FAA approved their structural modification AMOC on July 10, 2002.

Aviadesign, Inc. provided data to justify an initial Raytheon inspection followed by installation of a steel strap (Saunders strap) to the wing per their STC and repetitive Raytheon inspections every 2,400 hours TIS. This also was proposed as an AMOC to AD 2001-13-18. The FAA approved their structural modification AMOC on July 24, 2002.

The T-34 Association, Inc. and the T-34 Technical Committee submitted a fluorescent inspection procedure to inspect for cracks in the rear spar wing attachment fitting. They proposed this as a method to extend compliance of AD 2001-13-18. The FAA approved this inspection procedure as a means to detect cracks in the rear spar fitting.

Compliance with AD 2001-13-18 is needed by August 16, 2002, for any airplane that has flown more than 80 hours since the AD was issued. Neither of the above-mentioned AMOCs can be accomplished in time to prevent a large portion of the T-34 fleet from being grounded unless the airplanes are inspected as specified in the AD.

The FAA agrees that the AMOCs discussed above are better long-term solutions than relying on repetitive inspections. However, the FAA believes it is unacceptable to have indefinite operation without some inspections of the spars. Now that there are sound alternatives to the repetitive inspections and because a realistic schedule required to modify the entire fleet is 1-2 years, the FAA has defined a method to allow extensions to the AD compliance.

On July 24, 2002, the FAA wrote a letter to the legal docket for AD 2001-13-18 that provides an AMOC and extension to the compliance time for that AD. (AD Docket No. 2000-CE-09-AD; Amendment 39-12300: AD 2001-13-18.) On August 5, 2002, the FAA revised that letter to clarify the amount of time permitted for owners to accomplish required inspections and schedule their airplane for an approved structural modification.

In order to use this AMOC, the following provisions must be accomplished:

- The operational limitations specified in paragraphs (d)(1) through (d)(3) of AD 2001-13-18 remain in effect until the airplane has been modified by an approved structural AMOC. (Maximum airspeed of 175 MPH, g limits between –0.0 and +2.5, and no acrobatic maneuvers.)

- Within the next 20 hours TIS after August 16, 2002, accomplish the rear spar attach fitting inspection per the instructions of T-34 Technical Committee Report No. 071102 Part 1, Rev. IR, Appendix A, dated July 11, 2002. If cracks are found, no further flight is permitted until both the front spar and rear spar fitting are repaired or replaced. The owner must notify the FAA (Wichita Aircraft Certification Office) immediately if cracks are found.

- Repeat the rear spar fitting inspection within the next 100 hours TIS after the initial inspection. This provides a total of 200 hours TIS after the initial inspection.

- Owners must obtain and retain proof that they are scheduled for completion of an approved structural AMOC. This will include the name of the modifier and scheduled date of modification. This proof must be obtained by whichever of the following occurs later:

    - Within 100 hours TIS from August 16, 2001, but no later than August 16, 2003; or

    - Within the next 20 hours TIS after August 16, 2002, but no later than August 16, 2003.

- The structural AMOC modification must be accomplished by August 16, 2004 or 200 hours TIS after the first rear spar fitting inspection, whichever occurs first.

- Owners must provide rear spar fitting inspection results to the modifier that the owner has selected for the structural AMOC. The modifier will maintain this information for all airplanes scheduled for that form of modification and will provide the inspection results to the FAA monthly as they are received.

- Modifiers holding approved AMOCs to the AD must share with the FAA their schedule of modifications and records of modifications completed.

The FAA will review the rear spar fitting inspection results and monitor the progress of each modifier's schedules. If rear spar fitting inspections indicate adverse trends, or if modifiers or owners are not holding to completion schedules, regulatory action may be initiated.

The FAA will revise this SAIB if additional AMOCs are approved.

Recommendation
You may consider modifying the wings of your T-34 according to an FAA-approved AMOC. In order to extend operation beyond the limits of AD-2001-13-18, you will need to comply with the extension provisions described above.

You can obtain the necessary rear spar fitting inspection procedures from the T-34 Technical Committee. Their contact information is at the end of this Bulletin.

In order to show proof that you are complying with the requirements of the compliance extension, you must record the initial and repeat rear spar fitting inspection results in your airplane's maintenance logs. You should also provide these results to the modifier you have chosen to complete an approved modification AMOC.

You also must obtain and retain proof that you are scheduled for completion of an approved modification AMOC. Once you have committed to a modification, the approved modifier will issue you a letter stating that you are scheduled for the modification and the estimated completion date. This letter will serve as proof of your intent. In order to show compliance with the provisions of the AMOC, you should also retain a copy of this letter with your maintenance records. This information will then be available to your local authorized inspector (IA) or FAA inspector.

You must have your airplane modified within the next 200 hours TIS after the initial AMOC inspection, but no later than August 16, 2004, to avoid non-compliance with the AD. When your airplane has been modified, routine maintenance logbook entries will document your compliance with the AD and AMOC. The flight operation limitations of AD 2001-13-18 will be removed at that time.

The FAA will monitor the rear spar fitting inspection results to verify that no immediate fleet safety issues exist. The FAA will also monitor the progress of the modifications to verify that the modifiers and owners are working to complete their modifications according to their schedules and in a timely manner.

Explanation of Compliance Requirements:
The requirements of AD 2001-13-18 remain an option: perform the Raytheon inspections within 80 hours TIS since August 16, 2001, or by August 16, 2002, whichever occurs later and repeat those inspections every 80 hours as required by AD 2001-13-18.

If your airplane has 80 or more hours TIS since August 16, 2001, you must accomplish the Raytheon inspections prior to further flight (or by August 16, 2002). As an alternative, if you choose to modify your airplane, within the next 20 hours TIS after August 16, 2002, you must accomplish the rear spar fitting inspection and obtain proof that your airplane is scheduled for one of the approved structural AMOCs. The modification must be completed by August 16, 2004. (If your airplane has less than 100 hours TIS since August 16, 2001, you have either until your airplane reaches 100 hours TIS or 20 hours TIS after August 16, 2002 to schedule your airplane for a modification. In either case, the scheduling must be done before August 16, 2003.)

If your airplane has less than 80 hours TIS since August 16, 2001, you must accomplish the Raytheon inspections before 80 hours TIS since August 16, 2001. As an alternative, if you choose to modify your airplane, within the next 20 hours TIS after August 16, 2002, you must accomplish the rear spar fitting inspection. Within 100 hours TIS since August 16, 2001, you must also obtain proof that your airplane is scheduled for one of the approved structural AMOCs. You must obtain proof no later than August 16, 2003. The modification must be completed by August 16, 2004.

For convenience, the following chart provides scenarios of when the initial actions of the AD and the actions of the AMOC would need to be complied with:

Hours TIS	**AD 2001-13-08**	**AMOC Inspection**	**AMOC Scheduling**	**AMOC Modification**
Accumulated 85 hours since August 16, 2001:	By August 16, 2002.	Within 20 hours TIS after August 16, 2002, and again at 100 hours TIS after the initial inspection.	Within the next 20 hours TIS after August 16, 2002. This must be scheduled prior to August 16, 2003.	Within 200 hours TIS after the initial AMOC inspection, but no later than August 16, 2004.
Accumulated 80 hours since August 16, 2001:	By August 16, 2002.	Within 20 hours TIS after August 16, 2002, and again at 100 hours TIS after the initial inspection.	Within the next 20 hours TIS after August 16, 2002. This must be scheduled prior to August 16, 2003.	Within 200 hours TIS after the initial AMOC inspection, but no later than August 16, 2004.
Accumulated 65 hours since August 16, 2001:	Within 15 hours TIS or by August 16, 2002, whichever occurs later.	Within 20 hours TIS after August 16, 2002, and again at 100 hours TIS after the initial inspection.	Within the next 35 hours TIS or 20 hours TIS after August 16, 2002, whichever occurs later. This must be scheduled prior to August 16, 2003.	Within 200 hours TIS after the initial AMOC inspection, but no later than August 16, 2004.
Accumulated 20 hours since August 16, 2001:	Within 60 hours TIS or by August 16, 2002, whichever occurs later.	Within 20 hours TIS after August 16, 2002, and again at 100 hours TIS after the initial inspection.	Within the next 80 hours TIS or 20 hours TIS after August 16, 2002, whichever occurs later. This must be scheduled prior to August 16, 2003.	Within 200 hours TIS after the initial AMOC inspection, but no later than August 16, 2004.

In each of the examples above, when the owner elects to comply by modifying the aircraft pursuant to an approved AMOC, the lower rear spar fitting inspection must be repeated no later than 100 hours TIS after it is first performed, while waiting on the AMOC modification to be accomplished.

For Further Information Contact:
T-34 Association, Inc. You may obtain copies of the rear spar fitting fluorescent penetrant inspection procedure by contacting the T-34 Association, Inc., and the Technical Committee. Their contacts are: Tim Roehl or George Braly, General Aviation Modifications, Inc. (GAMI), 2800 Airport Rd. Hangar A, Ada, OK 74820; telephone: (580) 436-4833; Fax: (580) 436-6622; E-mail: troehl@gami.com, or gwbraly@gami.com

FAA, Wichita Aircraft Certification Office, Attention Paul Nguyen, ACE 118W, 1801 Airport Road, Room 100, Wichita, KS 67209; telephone: (316) 946-4125; fax: (316) 946-44407; E-mail: paul.nguyen@faa.gov

FAA, Small Airplane Directorate, Attention Marv Nuss, ACE-113, 901 Locust, Room 301, Kansas City, MO 64106; telephone: (816) 329-4117; fax: (816) 329-4090; E-mail: marvin.nuss@faa.gov